

IN THE CLAIMS:

1. A medical article comprising:
 - (a) a therapeutic agent; and
 - (b) a release region comprising (i) a polymer and (ii) a filler comprising inorganic platelet particles, said release region regulating the rate of release of the therapeutic agent from the medical article upon placement of the medical article at a position on or within a patient.
2. The medical article of claim 1, wherein said release region comprises said therapeutic agent.
3. The medical article of claim 1, wherein said release region is disposed over a region that comprises said therapeutic agent.
4. The medical article of claim 1, wherein said release region is disposed over at least a portion of a substrate.
5. The medical article of claim 4, wherein said release region comprises said therapeutic agent.
6. The medical article of claim 4, wherein said release region is disposed over a layer that comprises said therapeutic agent, which is further disposed over said substrate.
7. The medical article of claim 1, wherein said medical article is adapted for implantation or insertion into a human body.
8. The medical article of claim 7, wherein said medical article is adapted for implantation or insertion into the vasculature.

9. The medical article of claim 7, wherein said medical article is selected from a catheter, a guide wire, a balloon, a filter, a stent, a stent graft, a vascular graft, a vascular patch, a shunt, and an intraluminal paving system.

10. The medical article of claim 7, wherein said medical article is adapted for implantation or insertion into the esophagus, trachea, colon, biliary tract, urinary tract, prostate or brain.

11. The medical article of claim 1, wherein said therapeutic agent is selected from an anti-thrombotic agent, an anti-proliferative agent, an anti-inflammatory agent, an anti-migratory agent, an agent affecting extracellular matrix production and organization, an antineoplastic agent, an anti-mitotic agent, an anesthetic agent, an anti-coagulant, a vascular cell growth promoter, a vascular cell growth inhibitor, a cholesterol-lowering agent, a vasodilating agent, and an agent that interferes with endogenous vasoactive mechanisms, or a combination of the same.

12. The medical article of claim 1, wherein said wherein said filler comprises inorganic platelet particles having an aspect ratio greater than 100.

13. The medical article of claim 1, wherein said wherein said filler comprises inorganic platelet particles having an aspect ratio greater than 1000.

14. The medical article of claim 1, wherein said wherein said filler comprises exfoliated silicate platelet particles.

15. The medical article of claim 1, wherein said filler comprises exfoliated silicate platelet particles selected from exfoliated bentonite platelet particles, exfoliated vermiculite platelet particles, exfoliated montmorillonite platelet particles, exfoliated nontronite platelet particles, exfoliated beidellite platelet particles, exfoliated volkonskoite platelet particles, exfoliated hectorite platelet particles, exfoliated saponite platelet particles, exfoliated laponite platelet particles, exfoliated sauconite platelet

particles, exfoliated magadiite platelet particles, exfoliated kenyaite platelet particles, exfoliated ledikite platelet particles, and mixtures thereof.

16. The medical article of claim 1, wherein said filler comprises exfoliated vermiculite platelet particles.

17. The medical article of claim 1, wherein said polymer comprises a poly(olefin) segment.

18. The medical article of claim 17, wherein said polymer is a poly(olefin) homopolymer.

19. The medical article of claim 17, wherein said polymer is a block copolymer comprising a poly(alkylene) segment .

20. The medical article of claim 1, wherein said polymer comprises a poly(vinyl aromatic) segment.

21. The medical article of claim 20, wherein said polymer is a block copolymer comprising a poly(vinyl aromatic) segment .

22. The medical article of claim 1, wherein said polymer is a block copolymer comprising a poly(alkylene) segment and a poly(styrene) segment.

23. The medical article of claim 22, wherein said polymer is a block copolymer comprising a poly(isobutylene) segment and a poly(styrene) segment.

24. The medical article of claim 23, wherein said block polymer is a polystyrene-polyisobutylene-polystyrene triblock copolymer.

25. A method of releasing a therapeutic agent to a patient comprising: (a) providing the medical article of claim 1; and (b) contacting said medical article with a patient.

26. A method of providing the medical article of claim 1 comprising:
providing a substrate;
contacting said substrate with a release-region-forming fluid comprising said polymer, said filler, and a fluid diluent; and
drying said release-region-forming fluid to form said release layer.

27. The method of claim 26, wherein said release-region-forming fluid further comprises said therapeutic agent.

28. The method of claim 26, wherein the solids content of said release-region-forming fluid is less than 30%, and wherein the weight ratio of said polymer to said filler ranges from 20:1 to 1:1.

29. The method of claim 26, wherein said polymer is present in said release-region-forming fluid in the form of a solution or a latex.

30. The method of claim 26, wherein said substrate is a mold.

31. The method of claim 26, wherein said substrate is a medical article substrate.

32. The method of claim 26, wherein said substrate is adapted for implantation or insertion into a human body.

33. The method of claim 26, said filler comprises exfoliated silicate platelet particles.